

IPU/2661



Practitioner's Docket No. 3245-PAT

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Bobkov, et al.

Application No.: 10/524,988 ✓ Group No.: 2661

Filed: 10/04/2005 ✓ Examiner: unknown

For: Method for suppressing narrowband noise in a wideband communication system

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REQUEST FOR CORRECTED FILING RECEIPT**

1. Attached is a copy of the official filing receipt received from the PTO in the above application for which issuance of a corrected filing receipt is respectfully requested.

NOTE: The PTO will not correct the filing receipt until the application is complete (in other words, the applicant files a response to the notice to file missing parts).

2. There is an error with respect to the following data, which is:

☐ incorrectly entered

and/or

☒ omitted.

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**CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10\***  
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☐ facsimile transmitted to the Patent and Trademark Office, (703) \_\_\_\_\_

Date: 3/23/06

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DONN K. HARMS

(type or print name of person certifying)the

\* Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

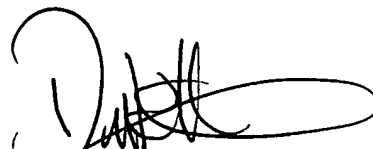
- Error in**
1. ☐ Applicant's name
  2. ☐ Applicant's address
  3. ☐ Title
  4. ☐ Filing Date
  5. ☐ Application Number
  6. ☐ Foreign/PCT Application Re:
  7. ☒ Other The name of the 3rd inventor was omitted from the filing receipt, even though it was included as page 3 of the Declaration originally filed with the application on 2/17/2005.  
(See attached Declaration)

- Correct data**
- 1.
  - 2.
  - 3.
  - 4.
  - 5.
  - 6.
  7. VASILIIY VASILIEVICH KALUGIN  
d.3. kv.33 derevnya Novo-Shihovo  
Moskovskaya obl. Odincovski  
Russian Federation

Reg. No.: 38,911

Tel. No.: (858 ) 509-1400

Customer No.: 30084

  
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SIGNATURE OF PRACTITIONER

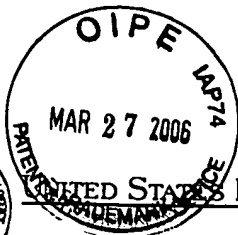
DONN K. HARMS

(type or print name of practitioner)

12702 Via Cortina, Ste. 100

P.O. Address

Del Mar, CA 92014



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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/524,988	10/04/2005	2661	580	3245-PAT	6	1	1

CONFIRMATION NO. 3222

30084  
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## FILING RECEIPT



\*OC000000018216318\*

Date Mailed: 03/07/2006

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Mihail Nikolaevich Bobkov, Moscow, RUSSIAN FEDERATION;  
 Aleksei Aleksandrovich Galitsin, Ljubertsky, RUSSIAN FEDERATION;

**Power of Attorney:** The patent practitioners associated with Customer Number 30084.

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/RU03/00371 08/19/2003

## Foreign Applications

RUSSIAN FEDERATION 2002122545 08/22/2002

**Projected Publication Date:** 06/15/2006

**Non-Publication Request:** No

**Early Publication Request:** No

**\*\* SMALL ENTITY \*\***

**Title**

## Method for suppressing narrowband noise in a wideband communication system

**Preliminary Class**

370

**PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

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Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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PTO/SB/01 (09-04)

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**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

☒ Declaration  
Submitted  
With Initial  
Filing

OR

☐ Declaration  
Submitted after Initial  
Filing (surcharge  
(37 CFR 1.16 (e))  
required)

Attorney Docket  
Number

3245-PAT

First Named Inventor

Bobkov, Mihail Nikolaevich

COMPLETE IF KNOWN

Application Number

Filing Date

Art Unit

Examiner Name

I hereby declare that:

Each inventor's residence, mailing address, and citizenship are as stated below next to their name.

I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**METHOD FOR SUPPRESSING NARROWBAND NOISE IN A WIDEBAND  
COMMUNICATION SYSTEM**

(Title of the invention)

the specification of which

☒ is attached hereto

OR

☒ was filed on (MM/DD/YYYY)

08/19/2003

as United States Application Number or PCT International

Application Number **PCT/RU2003/000371** and was amended on (MM/DD/YYYY) (If applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT International filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
2002122545	RU	08/22/2002	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

(Page 1 of 2)

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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
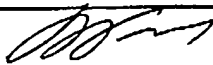
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**DECLARATION — Utility or Design Patent Application**

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Country	Telephone		Fax	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.				
NAME OF SOLE OR FIRST INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor		
Given Name (first and middle [if any])		Family Name or Surname		
MIHAIL NIKOLAEVICH		BOBKOV		
Inventor's Signature 			Date 14.02.05	
Residence: City	State	Country	Citizenship	
Moscow		Russian Federation	Russian Federation	
Mailing Address ul. Novogireevskaya, d.4, kv. 103				
City	State	Zip	Country	
Moscow		111123	Russian Federation	
NAME OF SECOND INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor		
Given Name (first and middle [if any])		Family Name or Surname		
ALEKSEI ALEKSANDROVICH		GALITSIN		
Inventor's Signature 			Date 14.02.05	
Residence: City	State	Country	Citizenship	
Ljubersky	Moskovskaya obl.	Russian Federation	Russian Federation	
Mailing Address ul. Kommunisticheskaya, d.18, kv.158				
City	State	Zip	Country	
Lubersky	Moskovskaya obl.	140013	Russian Federation	
<input type="checkbox"/> Additional inventors or a legal representative are being named on the supplemental sheet(s) PTO/SB/02A or 02LR attached hereto.				



PTO/SO/M2A (09-04)

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<b>DECLARATION</b>	<b>ADDITIONAL INVENTOR(S)</b> Supplemental Sheet
Page <u>2</u> of <u>2</u>	

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
VASILII VASILIEVICH		KALUGIN	
Inventor's Signature		Date <u>14.02.05</u>	
Residence: City <u>derevnya Novo-Shihovo</u>	State <u>Moskovskaya obl. Odincovski rayon</u>	Country <u>Russian Federation</u>	Citizenship <u>Russian Federation</u>
d.3, kv.33			
Mailing Address			
City <u>derevnya Novo Shihovo</u>	State <u>Moskovskaya obl. Odincovski</u>	Zip <u>143092</u>	Country <u>Russian Federation</u>
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
Inventor's Signature		Date	
Residence: City	State	Country	Citizenship
Mailing Address			
City	State	Zip	Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
Inventor's Signature		Date	
Residence: City	State	Country	Citizenship
Mailing Address			
City	State	Zip	Country

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(12) МЕЖДУНАРОДНАЯ ЗАЯВКА, ОПУБЛИКОВАННАЯ В СООТВЕТСТВИИ С  
ДОГОВОРом О ПАТЕНТНОЙ КООПЕРАЦИИ (РСТ)

(19) ВСЕМИРНАЯ ОРГАНИЗАЦИЯ  
ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТИ  
Международное бюро



(43) Дата международной публикации:  
4 Марта 2004 (04.03.2004)

РСТ

(10) Номер международной публикации:  
WO 2004/019507 A1

(51) Международная патентная классификация <sup>7</sup>:  
H04B 1/10

(21) Номер международной заявки: РСТ/RU2003/000371

(22) Дата международной подачи:  
19 августа 2003 (19.08.2003)

(25) Язык подачи: русский

(26) Язык публикации: русский

(30) Данные о приоритете:  
2002122545 22 августа 2002 (22.08.2002) RU

(71) Заявители и

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вар, д. 11 (RU) [OBSHCHESTVO S OGRA-  
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TENTNO-PRAVOVAYA FIRMA «VIS», Moscow  
(RU)].

(81) Указанные государства (национально): AE, AG,  
AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ,  
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ,  
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UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Указанные государства (регионально): ARIPO па-  
тент (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ,  
UG, ZM, ZW), евразийский патент (AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM), европейский патент  
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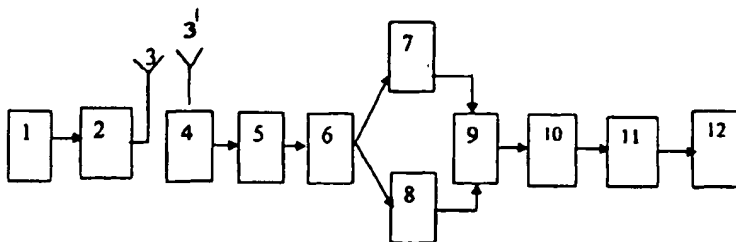
С отчётом о международном поиске.

(74) Агент: ОБЩЕСТВО С ОГРАНИЧЕННОЙ ОТВЕТ-  
СТВЕННОСТЬЮ ПАТЕНТНО-ПРАВОВАЯ  
ФИРМА «ВИС»; 121609 Москва, Осенний буль-

В отношении двухбуквенных кодов, кодов языков и дру-  
гих сокращений см. «Пояснения к кодам и сокращениям»,  
публикуемые в начале каждого очередного выпуска Бюл-  
летеня РСТ.

(54) Title: METHOD FOR SUPPRESSING NARROWBAND NOISE IN A WIDEBAND COMMUNICATION SYSTEM

(54) Название изобретения: СПОСОБ ПОДАВЛЕНИЯ УЗКОПОЛОСНОЙ ПОМЕХИ В СИСТЕМЕ ШИРОКО-  
ПОЛОСНОЙ СВЯЗИ



(57) Abstract: The invention is used for communication engineering, for example for wideband spread-spectrum communication systems. Said invention makes it possible to increase narrowband noise suppression ratio and practically eliminate the influence of a high-power narrowband noise or the group thereof within a limited bandwidth. The inventive method consists in power modulating a noise signal which is formed in the transmitting channel within a  $(F_0, F_1)$  frequency band, of the wideband communication system according to a defined modulation law within a frequency band of  $F_{mod} \in (F_1 - F_0)$ , in transmitting said noise signal through a transmission medium in which a narrowband noise is superposed thereon, receiving said signal by a receiver, filtering it within the  $(F_0, F_1)$  frequency band, amplifying and dividing it into two signals. One signal is obtained as a result of the filtered signal amplification and the amplitude limitation thereof. Said filtered signal or a linearly amplified signal without any change in the form thereof are used as a second signal. Afterwards, the thus obtained signals are multiplied together, the resulting signal is filtered within a frequency band  $[0, F_{nar} \cdot (F_1 - F_0)]$ , and a signal envelope obtained as a result of the filtering in the frequency band  $[0, F_{nar} \cdot (F_1 - F_0)]$  is separated for the purpose of subsequent demodulation and acquisition of an information signal.

[Продолжение на след. странице]

WO 2004/019507 A1